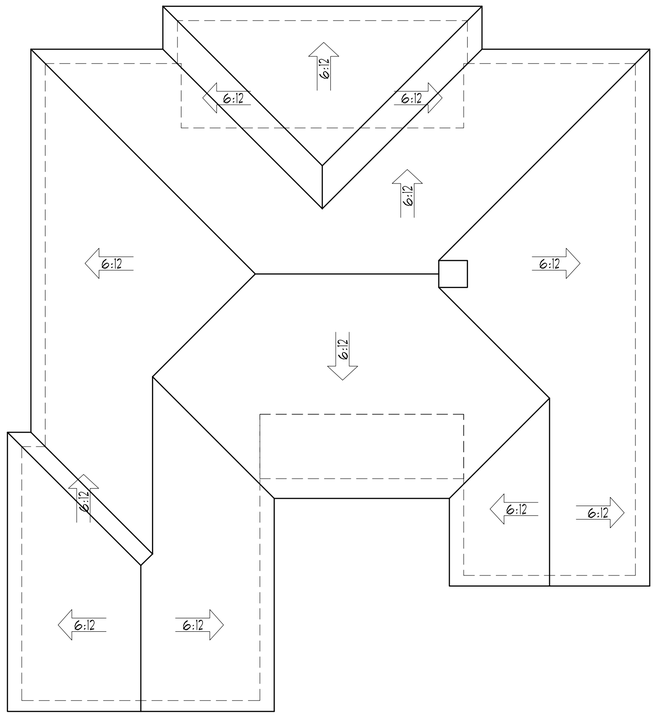
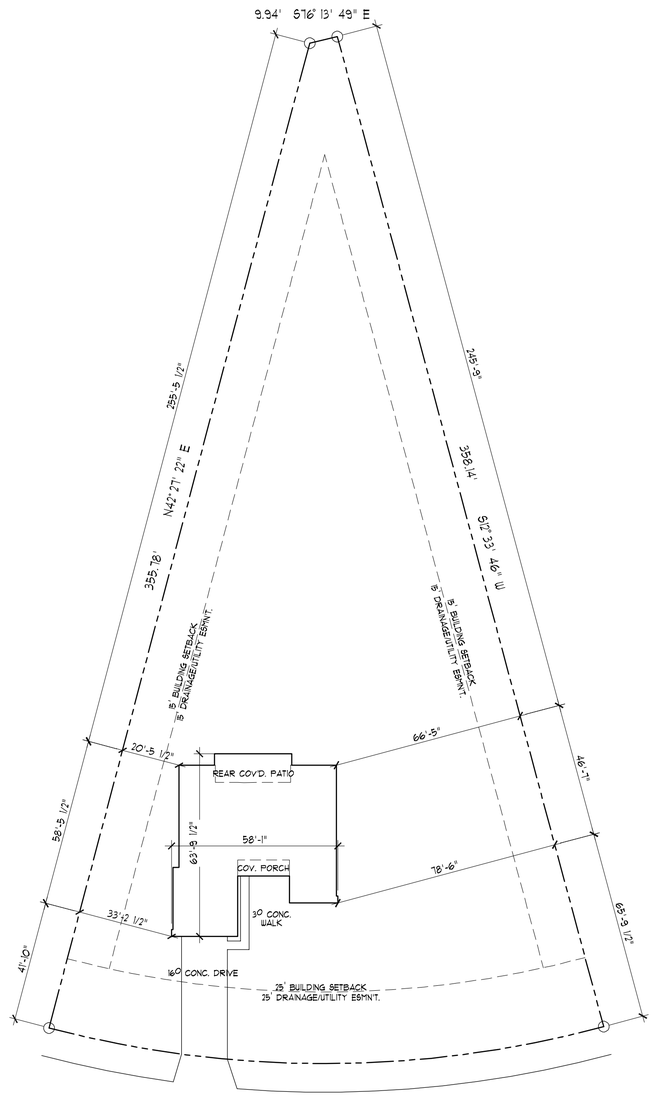


2 ROOF PLAN

SCALE: 1/8" = 1'-0"



1 SITE PLAN

SCALE: 1" = 10'

NOTE: ALL SITE & SURVEY INFORMATION PROVIDED BY OTHERS

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REGISTERED ARCHITECT
BRIAN R. ANDERSON
7241
STATE OF TEXAS
2022.04.14

MSA
ARCHITECTURE

RESIDENTIAL & COMMERCIAL
ARCHITECTURE & INTERIORS

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A CUSTOM HOME FOR:

BRIAN
CARPENTER

510 COMPASS ROSE
LOT 173
CANYON LAKE, TX

SITE PLAN &
ROOF PLAN

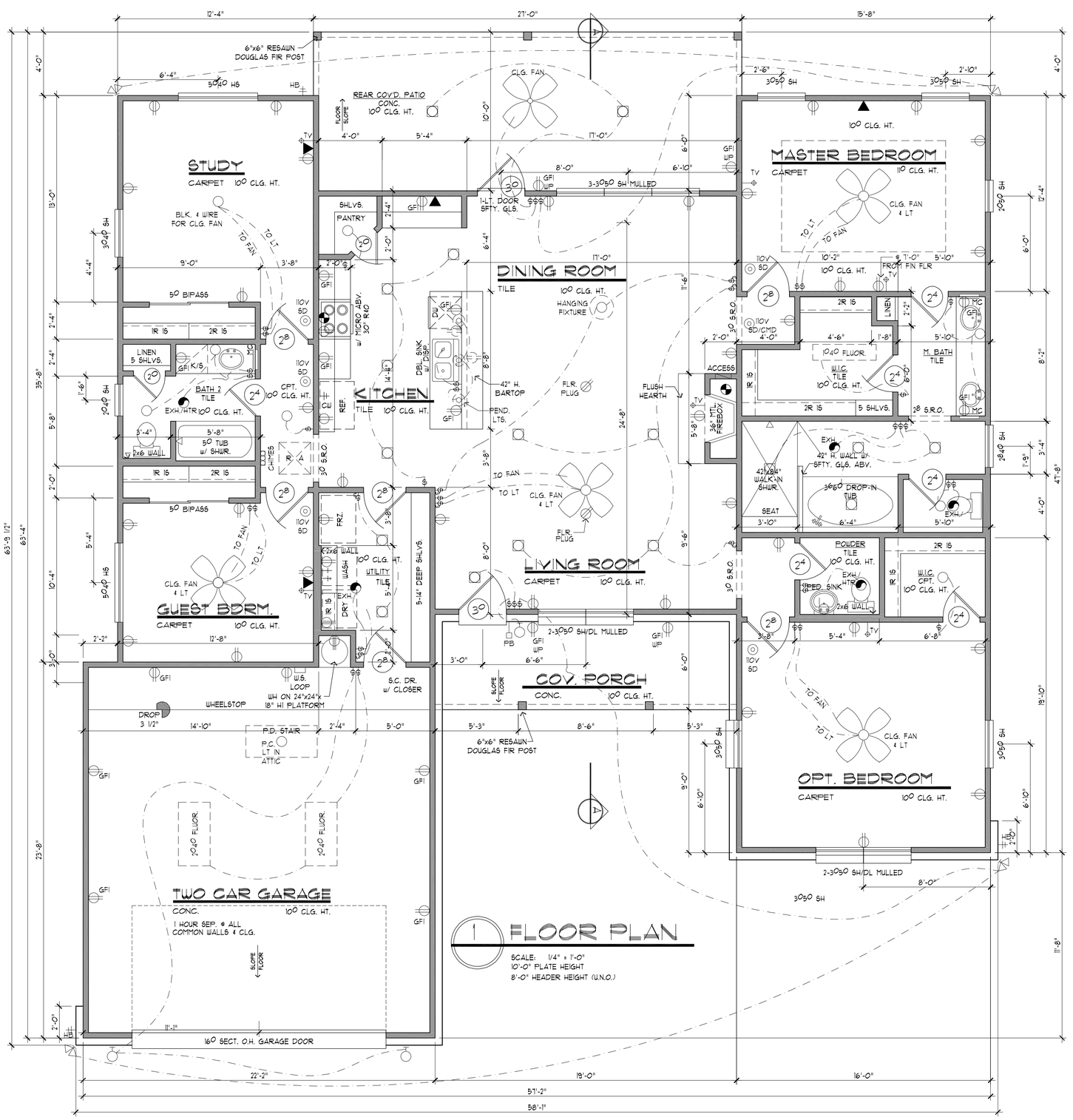
GL-4-1971
/BACKUP/RESIDENTIAL/BRIAN CARPENTER/COMPASS ROSE.ZIP

SHEET: 1
OF: 4

GENERAL NOTES:

ALL CONSTRUCTION SHALL CONFORM TO BUILDING CODES REQUIRED BY ALL AUTHORITIES HAVING JURISDICTION OVER THE PROJECT. ALL IRC SECTIONS & TABLES REFERENCED REFER TO IRC 2018 VERSION.

1. BUILDER SHALL VERIFY: ALL LOT DIMENSIONS, EASEMENTS, BUILDING LINES, AERIAL EASEMENTS, HEIGHT RESTRICTIONS, ROOF OVERHANG & GUTTER LIMITATIONS, FINISH FLOOR HEIGHTS (w/ RESPECT TO DRAINAGE & FLOOD PLAIN ISSUES), COVERAGE % AND ALL DEED RESTRICTIONS PRIOR TO COMMENCING CONSTRUCTION.
2. BUILDER & ALL SUBCONTRACTORS SHALL VERIFY ALL DIMENSIONS & NOTIFY ARCHITECT OF ANY DISCREPANCIES IMMEDIATELY BEFORE COMMENCING ADDITIONAL WORK.
3. THE GARAGE SHALL BE SEPARATED FROM THE RESIDENCE AND ITS ATTIC AREA BY NOT LESS THAN 1/2" GYP. BD. & FROM HABITABLE ROOMS ABOVE GARAGE BY 5/8" TYPE X GYP. BD. AND COMPLY WITH IRC SEC. R302.
4. ESCAPE/RESCUE WINDOW FROM SLEEPING AREAS SHALL HAVE A MINIMUM OF 5.7 SQ.FT. CLEAR NET OPENING AND A MINIMUM CLEAR OPENING HEIGHT OF 24" AND A MINIMUM CLEAR OPENING WIDTH OF 20". FINISHED SILL HEIGHT SHALL BE A MAXIMUM OF 44" ABOVE THE FLOOR & PER IRC SEC 310.
5. CONTRACTOR IS TO PROVIDE STEEL LINTELS ABOVE ALL OPENINGS WITH MASONRY ABOVE PER IRC SEC. 1003.8.
6. ONE-HOUR RATED GYPSUM BOARD SHALL BE INSTALLED UNDER STAIRS.
7. PROVIDE CROSS VENTILATION AT ENCLOSED ATTICS PER IRC R806.
8. ELECTRICAL CONTRACTOR TO LOCATE 110V OUTLET WITHIN 25'-0" OF A/C COMPRESSOR (GFI).
9. FIREPLACE CHIMNEY TO BE 2'-0" HIGHER THAN ANY STRUCTURE WITHIN 10'-0" (& 3'-0" MIN. HEIGHT AT RIDGE).
10. FACTORY BUILT FIREPLACES SHALL BE INSTALLED IN ACCORDANCE w/ IRC SECTION R1004 & SHALL BE TESTED IN ACCORDANCE w/ UL 127.
11. SMOKE ALARMS SHALL BE HARD WIRED IN SERIES WITH BATTERY BACKUP POWER AS PER IRC SEC. R314.
12. HANDRAILS SHALL BE INSTALLED ALONG ALL STEPS/STAIRS WITH 4 OR MORE RISERS AND CONFORM TO IRC SEC R311.
13. ALL HORIZONTAL GUARD RAILS WILL BE A MINIMUM OF 36" IN HEIGHT & COMPLY TO IRC SEC R312.
14. WALLS SHALL BE BRACED IN ACCORDANCE OF IRC SEC R602.10.
15. GLAZING SHALL COMPLY WITH IRC SEC. R308.
16. ROOF OVERHANGS SHALL NOT EXTEND INTO ANY UTILITY EASEMENTS.
17. PROJECTIONS LESS THAN 5' FROM PROP. LINE SHALL HAVE A 1-HOUR MIN. FIRE RESISTANCE RATING ON THE UNDERSIDE & SHALL NOT EXTEND TO WITHIN 4' OF PROP. LINE PER R302 & TABLE 302.1.
18. ALL DETAILS SHOWN ARE GENERAL AND ILLUSTRATIVE IN NATURE. BUILDER SHALL BE RESPONSIBLE FOR OVERSEEING AND INSURING ALL WATER-PROOFING, STRUCTURAL, AND OTHER CONSTRUCTION IS BUILT PROPERLY, PER CODES, INDUSTRY STANDARDS, AND MANUFACTURER'S SPECIFICATIONS.
19. REFER TO ATTACHED RESIDENTIAL DETAIL SHEET(S) FOR STANDARD DETAILS & RECOMMENDATIONS FOR PORTIONS OF THE LATEST INTERNATIONAL ENERGY CODE COUNCIL (IECC) REQUIREMENTS (REFER TO AUTHORITIES HAVING JURISDICTION AND CURRENT ADOPTED IECC REQUIREMENTS FOR OTHER PROJECT CLIMATE ZONES). NOTIFY ARCHITECT IMMEDIATELY IF NOT INCLUDED IN THIS SET OF DRAWINGS.
20. ALL SITE & SURVEY INFORMATION PROVIDED BY OTHERS.
21. SITE GRADING AND DRAINAGE PLANS PROVIDED BY OTHERS.
22. ALL ENGINEERING DESIGNS INCLUDING, BUT NOT LIMITED TO, CIVIL, GEOTECHNICAL, STRUCTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING SHALL BE PROVIDED BY OTHERS.



R5	04-13-22	REVISIONS
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REGISTERED ARCHITECT BRIAN F. ANDERSON 17241 STATE OF TEXAS
2022.04.14

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A CUSTOM HOME FOR:
BRIAN CARPENTER
510 COMPASS ROSE
LOT 173
CANYON LAKE, TX

FLOOR PLAN

SQUARE FOOTAGES:		
TOTAL LIVING	1971	Sq.Ft.
GARAGE	540	Sq.Ft.
FRONT PORCH	100	Sq.Ft.
REAR PATIO	266	Sq.Ft.
TOTAL COVERAGE	2877	Sq.Ft.

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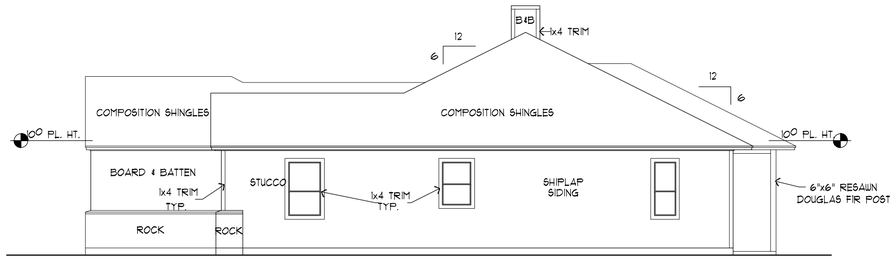
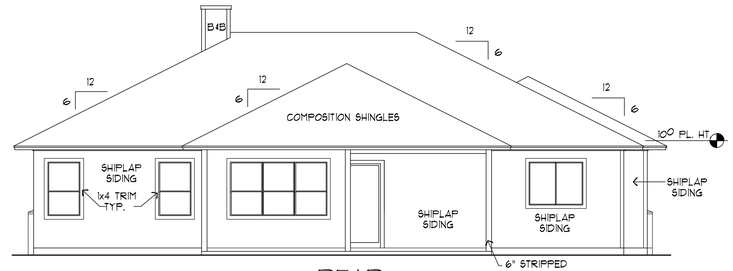
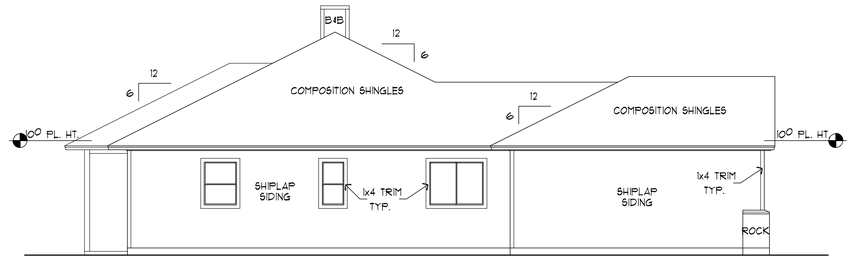
SHEET: 2
OF: 4



LEFT



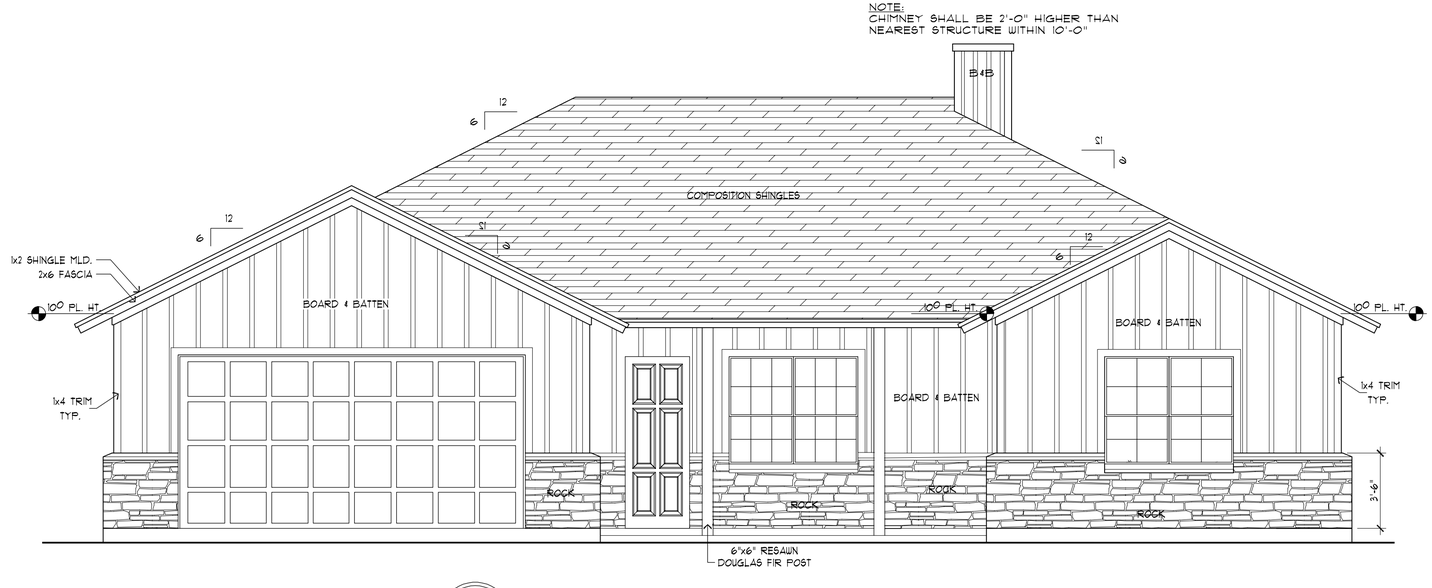
REAR



RIGHT

2 SIDES & REAR ELEVATIONS

SCALE: 1/8" = 1'-0"



1 FRONT ELEVATION

SCALE: 1/4" = 1'-0"

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R5	04-14-22	ISSUE

REGISTERED ARCHITECT
BRIAN R. AMES
17241
STATE OF TEXAS
2022.04.14

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A CUSTOM HOME FOR:

BRIAN CARPENTER

810 COMPASS ROSE
LOT 173
CANYON LAKE, TX

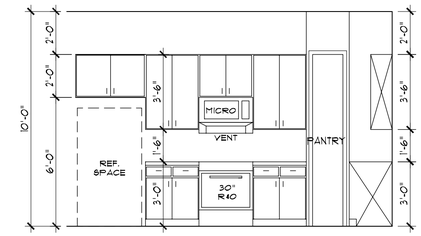
EXTERIOR ELEVATIONS

GL-4-1971

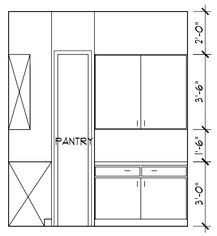
/BACKUPRESIDENTIAL/BRIAN CARPENTER/COMPASS ROSE.ZIP

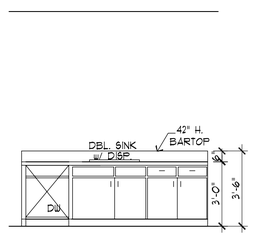
SHEET: 3

OF: 4

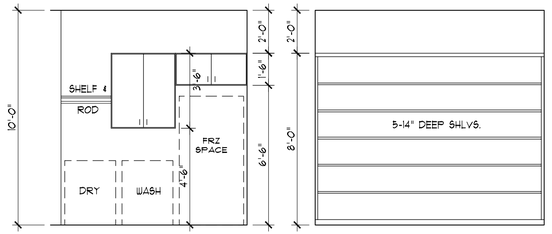


KITCHEN

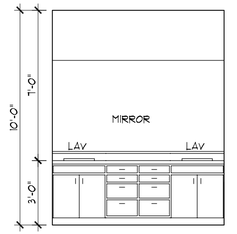




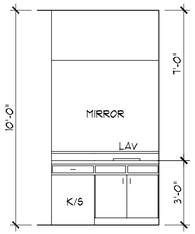
LIVING RM



UTILITY



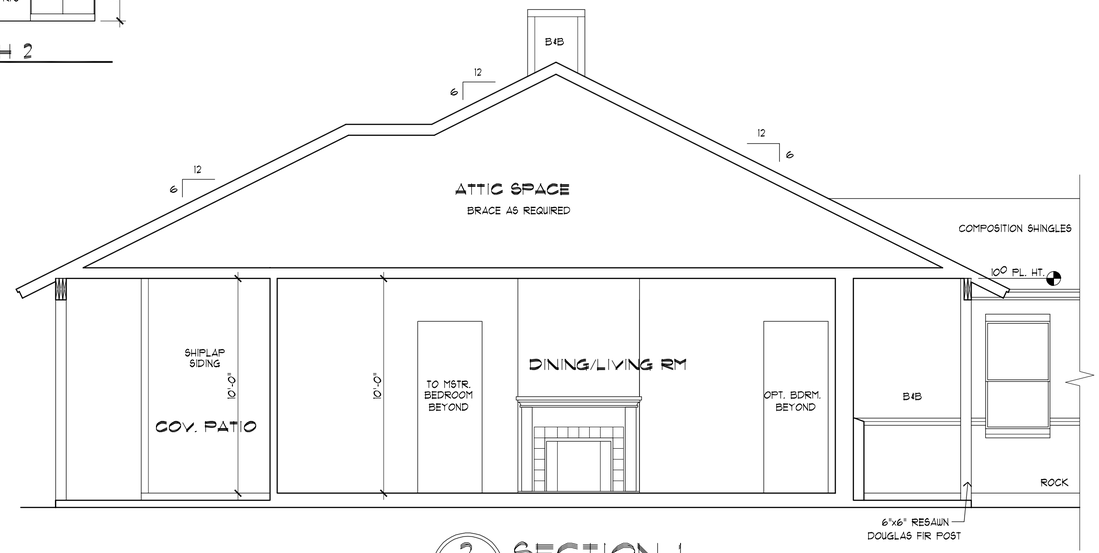
M. BATH



BATH 2

1 INTERIOR ELEVATIONS

SCALE: 1/4" = 1'-0"



2 SECTION 1

SCALE: 1/4" = 1'-0"

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REGISTERED ARCHITECT BRIAN R. AMES 17241 STATE OF TEXAS

04.14.22

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510 COMPASS ROSE
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CANYON LAKE, TX

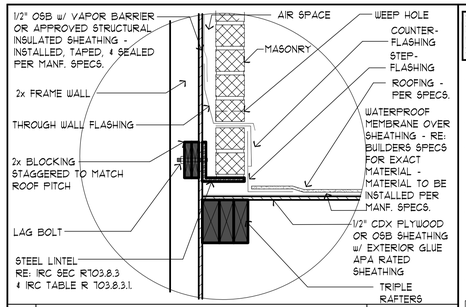
SECTION & INTERIOR ELEVATIONS

GL-4-1971

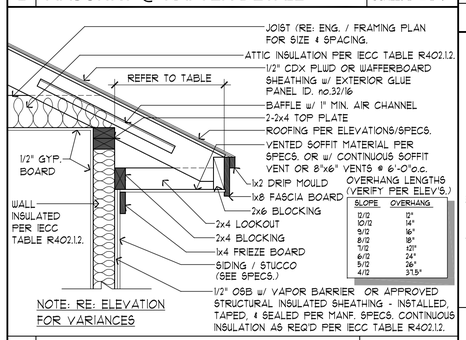
/BACKUP/RESIDENTIAL/BRIAN CARPENTER/COMPASS ROSE.ZIP

SHEET: 4

OF: 4

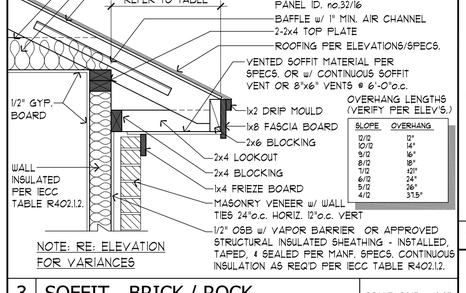


1 MASONRY @ RAFTER DETAIL — SCALE: 1" = 1'-0"



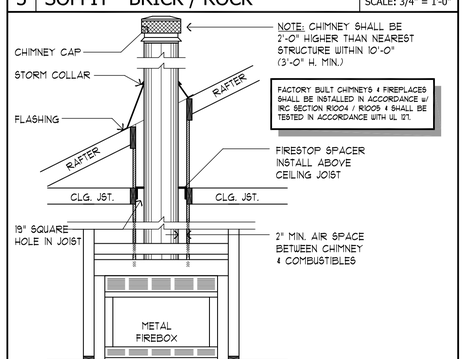
NOTE: RE: ELEVATION FOR VARIANCES

2 SOFFIT - SIDING / STUCCO — SCALE: 3/4" = 1'-0"



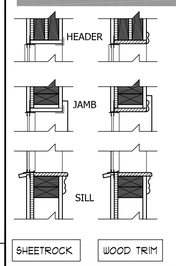
NOTE: RE: ELEVATION FOR VARIANCES

3 SOFFIT - BRICK / ROCK — SCALE: 3/4" = 1'-0"



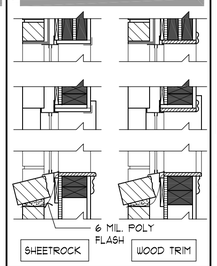
4 METAL FIREBOX — SCALE: 3/8" = 1'-0"

NOTES:
1. ALL GLAZING IS TO MEET REQUIREMENTS OF IRC SEC. R308.
2. INSTALL WINDOWS PER MANF. SPECS.

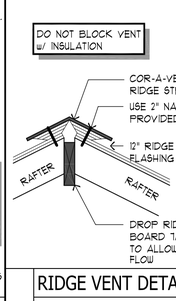


5 SIDING — SCALE: 1" = 1'-0"

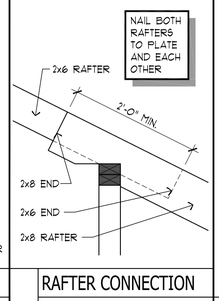
NOTES:
1. ALL GLAZING IS TO MEET REQUIREMENTS OF IRC SEC. R308.
2. INSTALL WINDOWS PER MANF. SPECS.



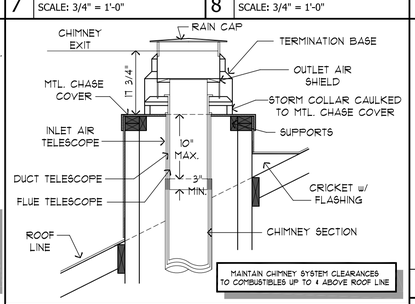
6 MASONRY — SCALE: 1" = 1'-0"



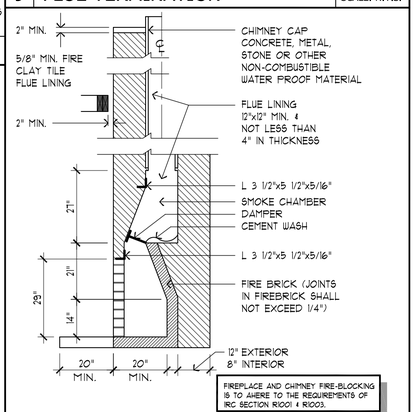
7 RIDGE VENT DETAIL — SCALE: 3/4" = 1'-0"



8 RAFTER CONNECTION — SCALE: 3/4" = 1'-0"



9 FLUE TERMINATION — SCALE: N.T.S.



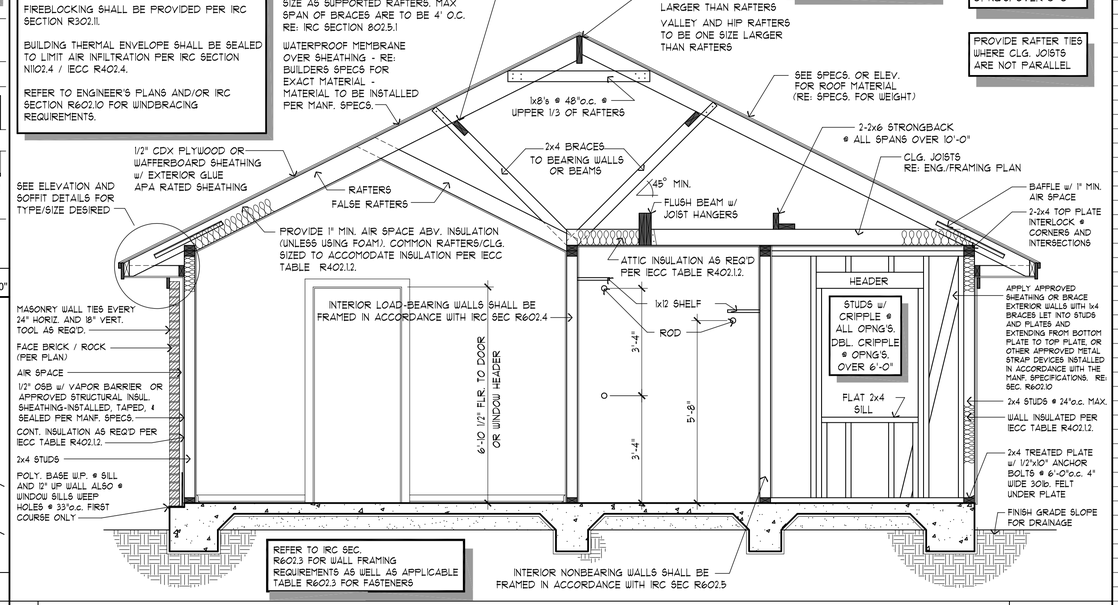
10 MASONRY FIREPLACE — SCALE: 3/8" = 1'-0"

ROOF/CEILING SHALL BE FRAMED PER IRC SECTION R801 & R802. REFER TO SECTION R802.5 FOR ALLOWABLE RAFTER SPANS.

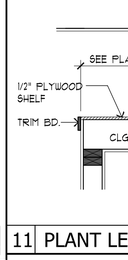
FIREBLOCKING SHALL BE PROVIDED PER IRC SECTION R302.11.

BUILDING THERMAL ENVELOPE SHALL BE SEALED TO LIMIT AIR INFILTRATION PER IRC SECTION N1102.4 / IECC R402.4.

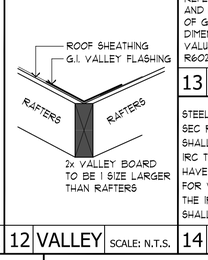
REFER TO ENGINEER'S PLANS AND/OR IRC SECTION R602.10 FOR WINDBRACING REQUIREMENTS.



2 TYPICAL ONE STORY SECTION — SCALE: 3/8" = 1'-0"



11 PLANT LEDGES — SCALE: N.T.S.



12 VALLEY — SCALE: N.T.S.

REFER TO IRC R502.5 ALLOWABLE GIRDER AND HEADER SPANS. THE ALLOWABLE SPANS OF GIRDERS OR HEADERS FABRICATED OF DIMENSIONAL LUMBER SHALL NOT EXCEED THE VALUES SET FORTH IN TABLES R602.7 (1), R602.7 (2) AND R602.7 (3).

13 GIRDER & HDR. SIZES

STEEL LINTELS SHALL COMPLY WITH IRC SEC R703.8.3 AND THE ALLOWABLE SPAN SHALL NOT EXCEED THE VALUES SET FORTH IN IRC TABLE R 703.8.3.1. THE LINTELS SHALL HAVE A BEARING OF NOT LESS THAN 4 INCHES. FOR VALUES EXCEEDING THE LIMITATIONS OF THE IRC, AN ENGINEERED LINTEL LETTER SHALL BE SUBMITTED.

14 LINTEL SIZES

KEY IECC REQUIREMENTS:
PROJECT SHALL COMPLY WITH ONE OF THE FOLLOWING FROM CHAPTER 4 OF THE IECC:
1. SECTIONS R401 THROUGH R404. (PRESCRIPTIVE)
2. SECTION R405 (SIMULATED ENERGY PERFORMANCE ANALYSIS) & THE PROVISIONS OF SECTION R401 THROUGH R404 LABELED "MANDATORY"
3. AN ENERGY RATING INDEX (ERI) APPROACH IN SECTION R406 & THE PROVISIONS OF SECTION R401 THROUGH R404 LABELED "MANDATORY", & SEC. R405.5.3.

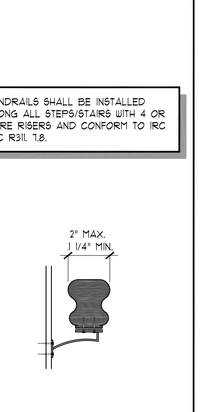
BUILDING THERMAL ENVELOPE: SHALL MEET THE REQUIREMENTS OF R402.1.1 - R402.1.5.

INSULATION & FENESTRATION: THE BUILDING THERMAL ENVELOPE SHALL MEET THE REQUIREMENTS OF TABLE R402.1.2, BASED ON THE CLIMATE ZONE THE PROJECT IS IN (SEE ENERGY CODE REQ'MTS SHEET).

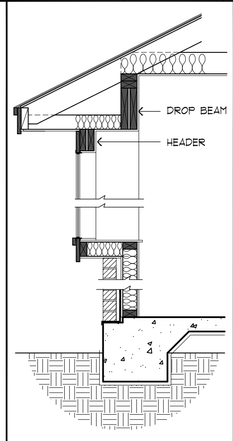
AIR LEAKAGE: BUILDING THERMAL ENVELOPE SHALL BE CONSTRUCTED ACCORDING TO THE REQ'MTS OF SECTIONS R402.4.1 - R402.4.4, AND TABLE R402.4.1.1. (SEE ENERGY CODE REQ'MTS SHEET).

15 ENERGY CODE REQUIREMENTS

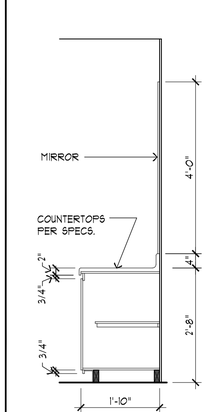
HANDRAILS SHALL BE INSTALLED ALONG ALL STEPS/STAIRS WITH 4 OR MORE RISERS AND CONFORM TO IRC SEC R311.7.8.



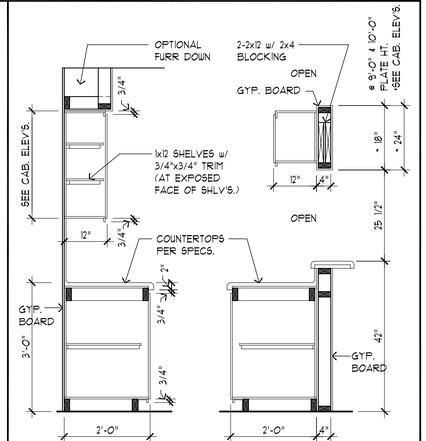
16 HANDRAIL — SCALE - N.T.S.



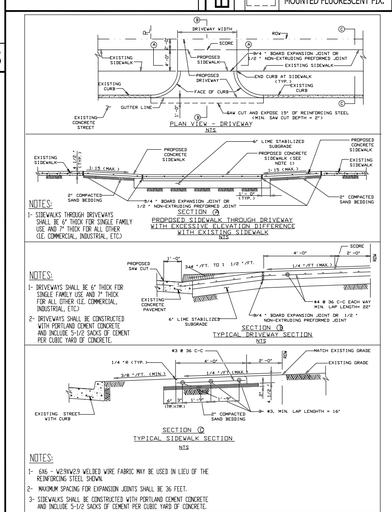
17 BOX WINDOW — 1/2" = 1'-0"



18 BATHROOM — SCALE: 1/2" = 1'-0"



19 KITCHEN — SCALE: 1/2" = 1'-0"



20 DRIVEWAY & APPROACH — SCALE: N.T.S.

LEDGEND

1R1S	1 ROD 1 SHELF
1R2S	1 ROD 2 SHELVES
2R2S	2 RODS 2 SHELVES
2/2	TWO OVER TWO
A.E.	AERIAL EASEMENT
A.F.F.	ABOVE FINISHED FLOOR
B.L.	BUILDING LINE
BM	BEAM (FLUSH OR DROP)
C.O.	CASED OPENING
CPT.	CARPET
C.T.	CERAMIC TILE
DBL.	DOUBLE
DH	DOUBLE HUNG
DISP.	GARBAGE DISPOSAL
DL	DIVIDED LIGHT
D.O.	DOUBLE OVEN
DW	DISHWASTHER
ENG.	ENGINEER
F.F.	FINISHED FLOOR
FG	FIXED GLASS
FLR.	FLOOR
F.R.B.	FOR ROOF BRACING
FR.DR.	FRENCH DOOR
G&N	GLUED AND NAILED
GYP. BD.	GYPSUM BOARD
HDR. HT.	HEADER HEIGHT
H.W.	HARD WOOD
IRC	INTERNATIONAL RESIDENTIAL CODE
K/S	KNEE SPACE
MICRO	MICROWAVE
N.C.	NORMAL CEILING
N.E.C.	NATIONAL ELECTRIC CODE
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
PL	PROPERTY LINE
PLYWD.	PLYWOOD
R&O	RANGE AND OVEN
R.C.	RAISED CEILING
RE	REFER TO
REF.	REFRIDGERATOR
R.S.C.	ROUNDED SHEETROCK CORNER
S.B.C.	STANDARD BUILDING CODE
SLP	SLOPED (CEILING)
SH	SINGLE HUNG
S.R.O.	SHEET ROCK OPENING
S.R.F.	SLIP RESISTANT FLOORING
S.S.E.	SANITARY SEWER EASEMENT
S/V	SHEET VINYL
S.Y.P.	SOUTHERN YELLOW PINE
T&G	TONGUE AND GROOVE (JOINT)
TYP.	TYPICAL
U.B.C.	UNIFORM BUILDING CODE
U.C.L.	UNDER CABINET LIGHTING
U.E.	UTILITY EASEMENT
UL	UNDERWRITERS LABRATORY
U.N.O.	UNLESS NOTED OTHERWISE
U.W.A.	UNDER WALL ABOVE
V.T.R.	VENT THROUGH ROOF
W.L.E.	WATER LINE EASEMENT

GENERAL SYMBOLS

	GAS OUTLET
C	COLD WATTER
H	HOT WATTER
HB	HOSE BIB
	SQUARE FOOT
	CENTERLINE
	PROPERTY LINE
3060	3'-0" x 6'-0"
3648	3'-6" x 4'-8"
R.A.G.	RETURN AIR GRILL

ELECTRICAL SYMBOLS

	110 VOLT DUPLEX RECEPTACLE
	220 VOLT RECEPTACLE
STPO	SWITCH TOP PLUG ONLY 110 VOLT DUPLEX RECEPTACLE
GFI	GROUND FAULT INTERUPT 110 VOLT DUPLEX RECEPTACLE
WP	WATERPROOF 110 VOLT DUPLEX RECEPTACLE
G.D.O.	GARAGE DOOR OPENER
F.P.	RECESSED FLOOR RECEPTACLE
S	SINGLE POLE SWITCH
3	THREE-WAY SWITCH
4	FOUR-WAY SWITCH
DM	DIMMER SWITCH
TV	T.V. / CABLE OUTLET
	PHONE OUTLET
PB	PUSH-BUTTON / DOORBELL
SD	SMOKE DETECTOR
CHIMES	DOORBELL CHIMES
	CEILING MOUNTED LIGHT FIX.
	RECESS MOUNTED CAN FIX.
WP	WATERPROOF RECESS MOUNTED CAN FIX.
	FLUSH MOUNTED EYE-BALL SPOT FIXTURE
U.C.L.	UNDER-CABINET LIGHT
EXH.	EXHAUST FAN
	WALL MOUNTED FIXTURE
	FLOOD LIGHT
	CEILING FAN WITH LIGHT
	CEILING FAN
40 FLUOR.	24" x 48" FLUSH MOUNTED FLUORESCENT FIX.
40 FLUOR.	12" x 48" FLUSH MOUNTED FLUORESCENT FIX.

REGISTERED ARCHITECT — BRENT R. ANDERSON — 17241 — STATE OF TEXAS
2016.09.27

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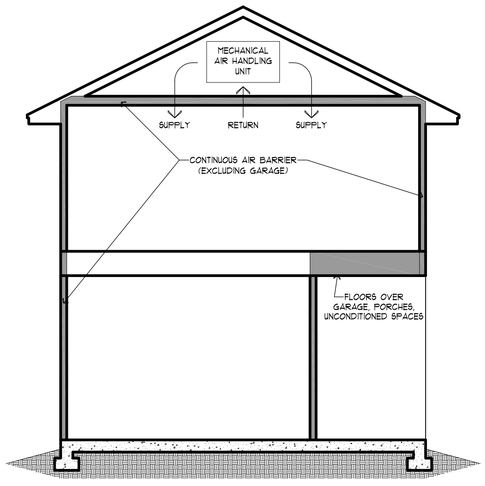
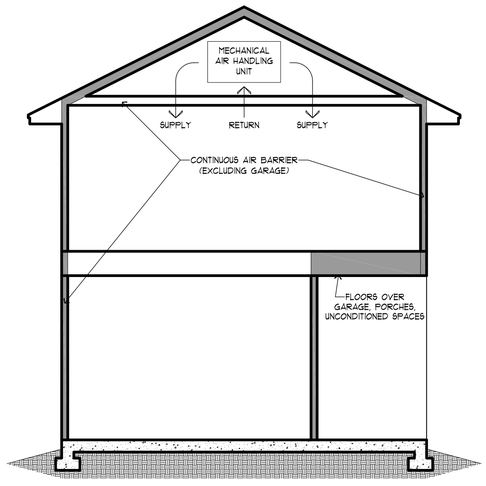
ONE STORY RESIDENCE DETAIL SHEET



THERMAL BARRIER DIAGRAM - BLOWN-IN ATTIC INSULATION (2-STORY)
SCALE: NOT TO SCALE



THERMAL BARRIER DIAGRAM - FOAM ATTIC INSULATION (2-STORY)
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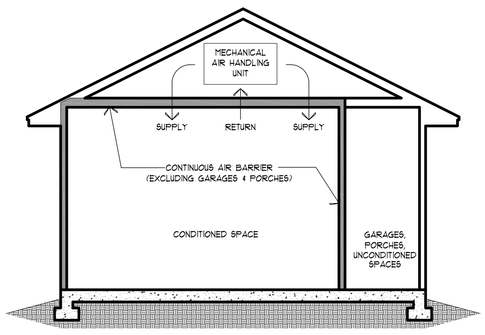

THERMAL BARRIER DIAGRAM - BLOWN IN ATTIC INSULATION (1-STORY)
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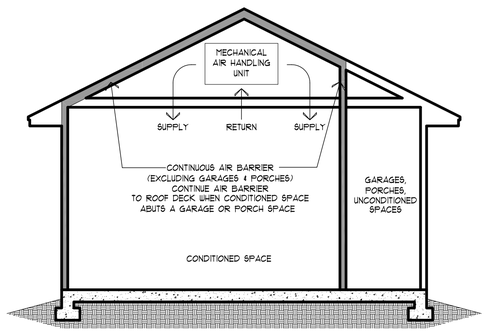

THERMAL BARRIER DIAGRAM - FOAM ATTIC INSULATION (1-STORY)
SCALE: NOT TO SCALE

R402 BUILDING THERMAL ENVELOPE
THE BLDG. THERMAL ENVELOPE SHALL MEET THE REQUIREMENTS OF SECTIONS R402.1.1 - R402.1.5.
R402.1.2 INSULATION & FENESTRATION: THE BUILDING THERMAL ENVELOPE SHALL MEET THE REQUIREMENTS OF TABLE R402.1.2, BASED ON THE CLIMATE ZONE THE PROJECT IS IN. REFER TO CLIMATE ZONES (IECC TABLE R301.1).

TABLE R402.1.2
INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT[a]

CLIMATE ZONE	FENESTRATION *U*-FACTOR[b]	SKYLIGHT[b] *U*-FACTOR	GLAZED FENESTRATION SHGC[b,c]	CEILING *R*-VALUE	WOOD FRAME WALL *R*-VALUE	MASS WALL *R*-VALUE[i]	FLOOR *R*-VALUE	BASEMENT[g] WALL *R*-VALUE	SLAB[d] *R*-VALUE & DEPTH	CRAWL SPACE[e] WALL *R*-VALUE
1	NR	0.75	0.25	30	13	3/4	13	0	0	0
2	0.40	0.65	0.25	38	13	4/6	13	0	0	0
3	0.35	0.55	0.25	38	20 or 13+5[h]	8/13	19	5/13[f]	0	5/13
4 except Marine	0.35	0.55	0.40	49	20 or 13+5[h]	8/13	19	10/13	10, 2 ft	10/13
5 and Marine 4	0.32	0.55	NR	49	20 or 13+5[h]	13/17	30[g]	15/19	10, 2 ft	15/19
6	0.32	0.55	NR	49	20+5 or 13+10[h]	15/20	30[g]	15/19	10, 4 ft	15/19
7 and 8	0.32	0.55	NR	49	20+5 or 13+10[h]	19/21	38[g]	15/19	10, 4 ft	15/19

For SI: 1 foot = 304.8 mm.

a. R-values are minimums. *U*-factors and SHGC are maximums. When insulation is installed in a cavity which is less than the label or design thickness of the insulation, the installed *R*-value of the insulation shall not be less than the *R*-value specified in the table.
b. The fenestration *U*-factor column excludes skylights. The SHGC column applies to all glazed fenestration. Exception: Skylights may be excluded from glazed fenestration SHGC requirements in climate zones 1 through 3 where the SHGC for such skylights does not exceed 0.30.
c. "15/19" means R-15 continuous insulation on the interior or exterior of the home or R-19 cavity insulation at the interior of the basement wall. "15/19" shall be permitted to be met with R-13 cavity insulation on the interior of the basement wall plus R-5 continuous insulation on the interior or exterior of the home. "10/13" means R-10 continuous insulation on the interior or exterior of the home or R-13 cavity insulation at the interior of the basement wall.
d. R-5 shall be added to the required slab edge *R*-values for heated slabs. Insulation depth shall be the depth of the footing or 2 feet, whichever is less in Climate Zones 1 through 3 for heated slabs.
e. There are no SHGC requirements in the Marine Zone.
f. Basement wall insulation is not required in warm-humid locations as defined by Figure R301.1 and Table R301.1.
g. Or insulation sufficient to fill the framing cavity, R-19 minimum.
h. The first value is cavity insulation, the second value is continuous insulation, so "13+5" means R-13 cavity insulation plus R-5 continuous insulation.
i. The second *R*-value applies when more than half the insulation is on the interior of the mass wall.

R402.4 AIR LEAKAGE (MANDATORY): BUILDING THERMAL ENVELOPE SHALL BE CONSTRUCTED ACCORDING TO THE REQ'MTS OF SECTIONS R402.4.1 - R402.4.4, AND TABLE R402.4.1.1.
R402.4.1.1 INSTALLATION: THE COMPONENTS OF THE BUILDING THERMAL ENVELOPE AS LISTED IN TABLE R402.4.1.1 SHALL BE INSTALLED IN ACCORDANCE WITH THE MANF. INSTRUCTIONS & THE CRITERIA LISTED IN TABLE R402.4.1.1, AS APPLICABLE TO THE METHOD OF CONSTRUCTION.
R402.4.1.2 TESTING: THE BUILDING SHALL BE TESTED AND VERIFIED AS HAVING AN AIR LEAKAGE RATE NOT EXCEEDING 5 AIR CHANGES PER HR IN CLIMATE ZONES 1 & 2, & 3 AIR CHANGES / HR IN CLIMATE ZONES 3-8. TESTING SHALL BE CONDUCTED IN ACCORDANCE WITH ASTM E779 OR ASTM E 1821 AND REPORTED AT A PRESSURE OF 0.2 INCH W.G. (50 PASCALS).

TABLE R402.4.1.1
AIR BARRIER AND INSULATION INSTALLATION

COMPONENT	AIR BARRIER CRITERIA	INSULATION INSTALLATION CRITERIA
General requirements	A continuous air barrier shall be installed in the building envelope. The exterior thermal envelope contains a continuous air barrier. Breaks or joints in the air barrier shall be sealed.	Air-permeable insulation shall not be used as a sealing material.
Ceiling/attic	The air barrier in any dropped ceiling/soffit shall be aligned with the insulation and any gaps in the air barrier shall be sealed. Access openings, drop down stairs or knee wall doors to unconditioned attic spaces shall be sealed.	The insulation in any dropped ceiling/soffit shall be aligned with the air barrier.
Walls	The junction of the foundation and sill plate shall be sealed. The junction of the top plate and the top of exterior walls shall be sealed. Knee walls shall be sealed.	Cavities within corners and headers of frame walls shall be insulated by completely filling the cavity with a material having a thermal resistance of R-3 per inch minimum. Exterior thermal envelope insulation for framed walls shall be installed in substantial contact and continuous alignment with the air barrier.
Windows, skylights and doors	The space between window/door jambs and framing, and skylights and framing shall be sealed.	
Rim joists	Rim joists shall include the air barrier.	Rim joists shall be insulated.
Floors (including above garage and cantilevered floors)	The air barrier shall be installed at any exposed edge of insulation.	Floor framing cavity insulation shall be installed to maintain permanent contact with the underside of subfloor decking, or floor framing cavity insulation shall be permitted to be in contact with the top side of sheathing, or continuous insulation installed on the underside of floor framing and extends from the bottom to the top of all perimeter floor framing members.
Crawl space walls	Exposed earth in unvented crawl spaces shall be covered with a Class I vapor retarder with overlapping joints taped.	Where provided instead of floor insulation, insulation shall be permanently attached to the crawlspace walls.
Shafts, penetrations	Duct shafts, utility penetrations, and flue shafts opening to exterior or unconditioned space shall be sealed.	
Narrow cavities		Batts in narrow cavities shall be cut to fit, or narrow cavities shall be filled by insulation that on installation readily conforms to the available cavity space.
Garage separation	Air sealing shall be provided between the garage and conditioned spaces.	
Recessed lighting	Recessed light fixtures installed in the building thermal envelope shall be sealed to the drywall.	Recessed light fixtures installed in the building thermal envelope shall be air tight and IC rated.
Plumbing and wiring		Batt insulation shall be cut neatly to fit around wiring and plumbing in exterior walls, or insulation that on installation readily conforms to available space shall extend behind piping and wiring.
Shower/tub on exterior wall	The air barrier installed at exterior walls adjacent to showers and tubs shall separate them from the showers and tubs.	Exterior walls adjacent to showers and tubs shall be insulated.
Electrical/phone box on exterior walls	The air barrier shall be installed behind electrical or communication boxes or air-sealed boxes shall be installed.	
HVAC register boots	HVAC register boots that penetrate building thermal envelope shall be sealed to the subfloor or drywall.	
Concealed sprinklers	When required to be sealed, concealed fire sprinklers shall only be sealed in a manner that is recommended by the manufacturer. Caulking or other adhesive sealants shall not be used to fill voids between fire sprinkler cover plates and walls or ceilings.	

a. In addition, inspection of log walls shall be in accordance with the provisions of ICC-400.

R403 SYSTEMS
ALL HVAC MECHANICAL SYSTEMS, WATER HEATERS, DUCTS, VENTS, PIPING, CONTROLS, POOL & SPA EQUIPMENT, SHALL MEET THE REQUIREMENTS OF SECTION R403.

R404 ELECTRICAL POWER & LIGHTING SYSTEMS
ALL POWER AND LIGHTING SYSTEMS SHALL MEET THE REQUIREMENTS OF SECTION R404.

R405 SIMULATED PERFORMANCE ALTERNATIVE (PERFORMANCE)
COMPLIANCE USING SIMULATED ENERGY PERFORMANCE ANALYSIS SHALL MEET THE REQUIREMENTS IN SECTION R405. SUCH ANALYSIS SHALL INCLUDE HEATING, COOLING, AND SERVICE WATER HEATING ENERGY ONLY.
R405.2 MANDATORY REQUIREMENTS: COMPLIANCE WITH THIS SECTION REQUIRES THAT THE MANDATORY PROVISIONS IDENTIFIED IN SEC. R401.2 BE MET. ALL SUPPLY & RETURN DUCTS NOT COMPLETELY INSIDE THE BLD'G. THERMAL ENVELOPE SHALL BE INSULATED TO A MINIMUM OF R-6.

R406 ENERGY RATING INDEX COMPLIANCE ALTERNATIVE
COMPLIANCE USING THIS METHOD SHALL MEET THE REQUIREMENTS OF SECTION R406
R406.2 MANDATORY REQUIREMENTS: COMPLIANCE WITH THIS SECTION REQUIRES THAT THE MANDATORY PROVISIONS IDENTIFIED IN SECTIONS R401.2 & R403.3.3 BE MET. THE BLDG. THERMAL ENVELOPE SHALL BE GREATER THAN OR EQUAL TO LEVELS OF EFFICIENCY & SHGC IN TABLE 402.1.2 OR 402.1.4 OF THE 2009 IECC.
R406.3 ENERGY RATING INDEX: THE ERI SHALL BE A NUMERICAL INTEGER VALUE THAT IS BASED ON A LINEAR SCALE CONSTRUCTED SUCH THAT THE ERI REFERENCE DESIGN HAS AN INDEX VALUE OF 100 AND A RESIDENTIAL BLDG. THAT USES NO NET PURCHASED ENERGY HAS AN INDEX VALUE OF 0.
R406.3.1 ERI REFERENCE DESIGN: THE ERI REFERNCE DESIGN SHALL BE CONFIGURED SUCH THAT IT MEETS THE MINIMUM REQ'MTS OF THE 2006 IECC PRESCRIPTIVE REQ'MTS.
R406.4 ERI-BASED COMPLIANCE: COMPLIANCE BASED ON AN ERI ANALYSIS REQUIRES THAT THE RATED DESIGN BE SHOWN TO HAVE AN ERI LESS THAN OR EQUAL TO THE APPROPRIATE VALUE LISTED IN TABLE R406.4 WHEN COMPARED TO THE ERI REFERENCE DESIGN.

TABLE R406.4
MAXIMUM ENERGY RATING INDEX

CLIMATE ZONE	ENERGY RATING INDEX
1	52
2	52
3	51
4	54
5	55
6	54
7	53
8	53

2015 INTERNATIONAL ENERGY CONSERVATION CODE (IECC) REQUIREMENTS

AS OF 9/1/2016, ALL RESIDENTIAL PROJECTS IN THE STATE OF TEXAS SHALL COMPLY WITH ONE OF THE FOLLOWING FROM CHAPTER 4 OF THE IECC:
1. SECTIONS R401 THROUGH R404. (PRESCRIPTIVE)
2. SECTION R405 (SIMULATED ENERGY PERFORMANCE ANALYSIS) & THE PROVISIONS OF SECTION R401 THROUGH R404 LABELED "MANDATORY"
3. AN ENERGY RATING INDEX (ERI) APPROACH IN SECTION R406 & THE PROVISIONS OF SECTION R401 THROUGH R404 LABELED "MANDATORY", & SEC. R403.5.3.

CONTRACTOR & ALL SUBCONTRACTORS/TRADES/SUPPLIERS SHOULD BE FAMILIAR WITH ALL THE IECC REQUIREMENTS APPLICABLE TO THEIR WORK OR PRODUCTS, AND INSURE COMPLIANCE WITH THE REQ'MTS. ONLY A FEW OF THE REQUIREMENTS/ SECTIONS/ TABLES ARE SHOWN ON THIS SHEET.

REGISTERED ARCHITECT
VINCENT R. ANDERSON
17241
STATE OF TEXAS
2016.09.27

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MSA OF SAN ANTONIO, INC. IS A PROFESSIONAL BUILDING DESIGN FIRM IN THE STATE OF TEXAS. WE ARE NOT AN ENGINEERING FIRM, WE DO NOT QUALIFY TO BE ONE, NOR ARE WE LICENSED TO DESIGN STRUCTURAL FRAMING, UNDERPINNING OR FOUNDATIONS. A LICENSED PROFESSIONAL ENGINEER SHOULD BE CONTRACTED AND CONSULTED IMMEDIATELY REGARDING FRAMING, UNDERPINNING AND THE FOUNDATION DESIGNS. SHOULD AN ENGINEER'S SEAL BE PRESENT ON THESE DRAWINGS, THE ENGINEER OF RECORD SHALL BEAR ALL RESPONSIBILITY FOR THE STRUCTURE, UNDERPINNING AND FOUNDATION DESIGNS FOR THIS PROJECT. MSA OF SAN ANTONIO, INC. IS NOT TO BE HELD RESPONSIBLE FOR THE STRUCTURAL DESIGN IN ANY WAY, MATTER OR FORM IF ANY PROBLEMS MAY ARISE.

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